

**A 21st Century Public Health
Defense:
*From Concept to Communities***

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Preventing Epidemics,
Protecting People



The Nation's Public Health Roots: Environment

- **1800's infectious disease epidemics**
- **Population based, Primary prevention strategies – sanitation, food safety, drinking water**
- **Attributed with 25 year increase in life expectancy**

Are We Prepared for the 21st Century's Health Challenges?

- **Chronic Disease is the leading cause of death and disability yet not focused on prevention**
- **Public Health minimally updated since 1800s**
- **Environmental health threats on the rise**

“Public health is in disarray”

**The Institute of Medicine,
*The Future of Public Health, 1988***

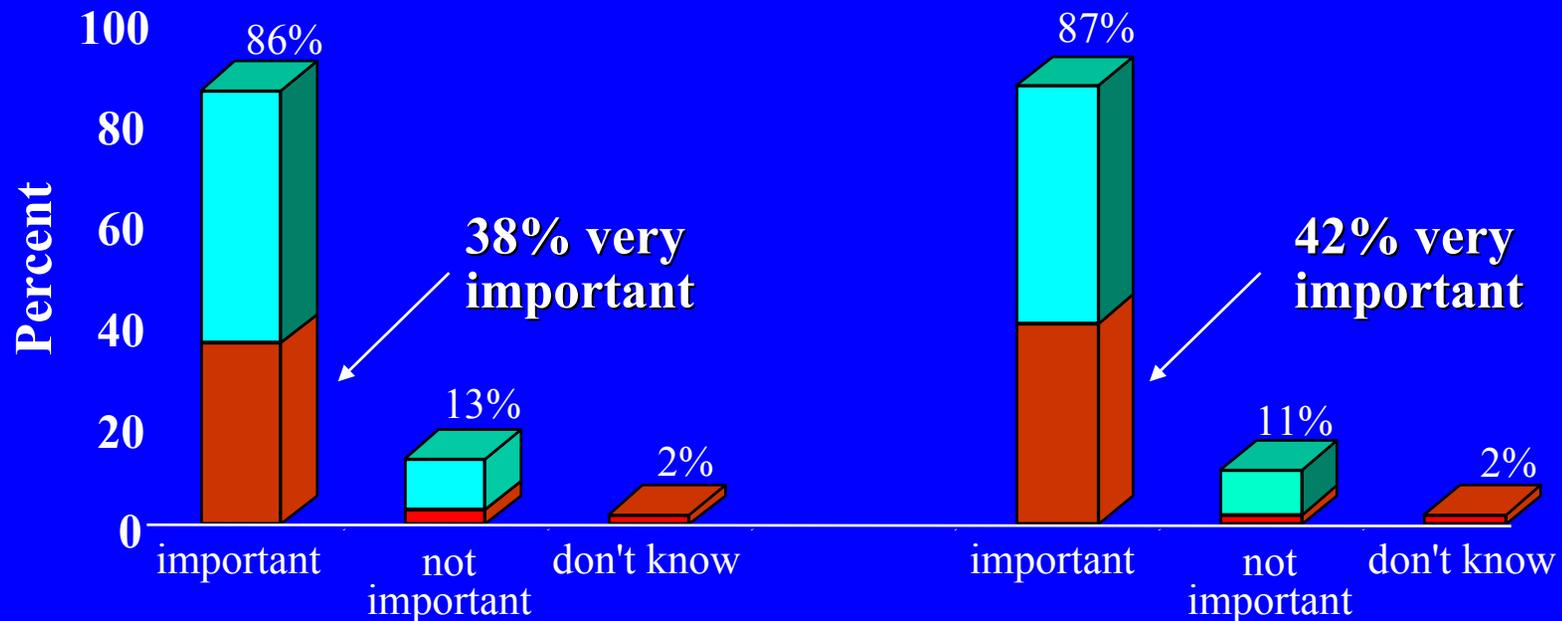
“The removal of environmental health authority from public health agencies has led to fragmented responsibility, lack of coordination, and inadequate attention to the health dimensions of environmental problems.”

*The Institute of Medicine,
The Future of Public Health, 1988*

The Public Believes That Environmental Factors Are A Major Cause Of Health Problems And Disease

Do you think environmental factors like pollution are...cause of diseases and health problems?

Do you think environmental factors like pollution are...cause of increased rates of diseases and health problems?



(darker shade=stronger intensity)



THE PEW
ENVIRONMENTAL
HEALTH COMMISSION

at the Johns Hopkins School of Public Health

*Bringing together the nation's leaders in
health, business, environment,
government and communities
to strengthen
the country's public health defenses
against environmental threats*

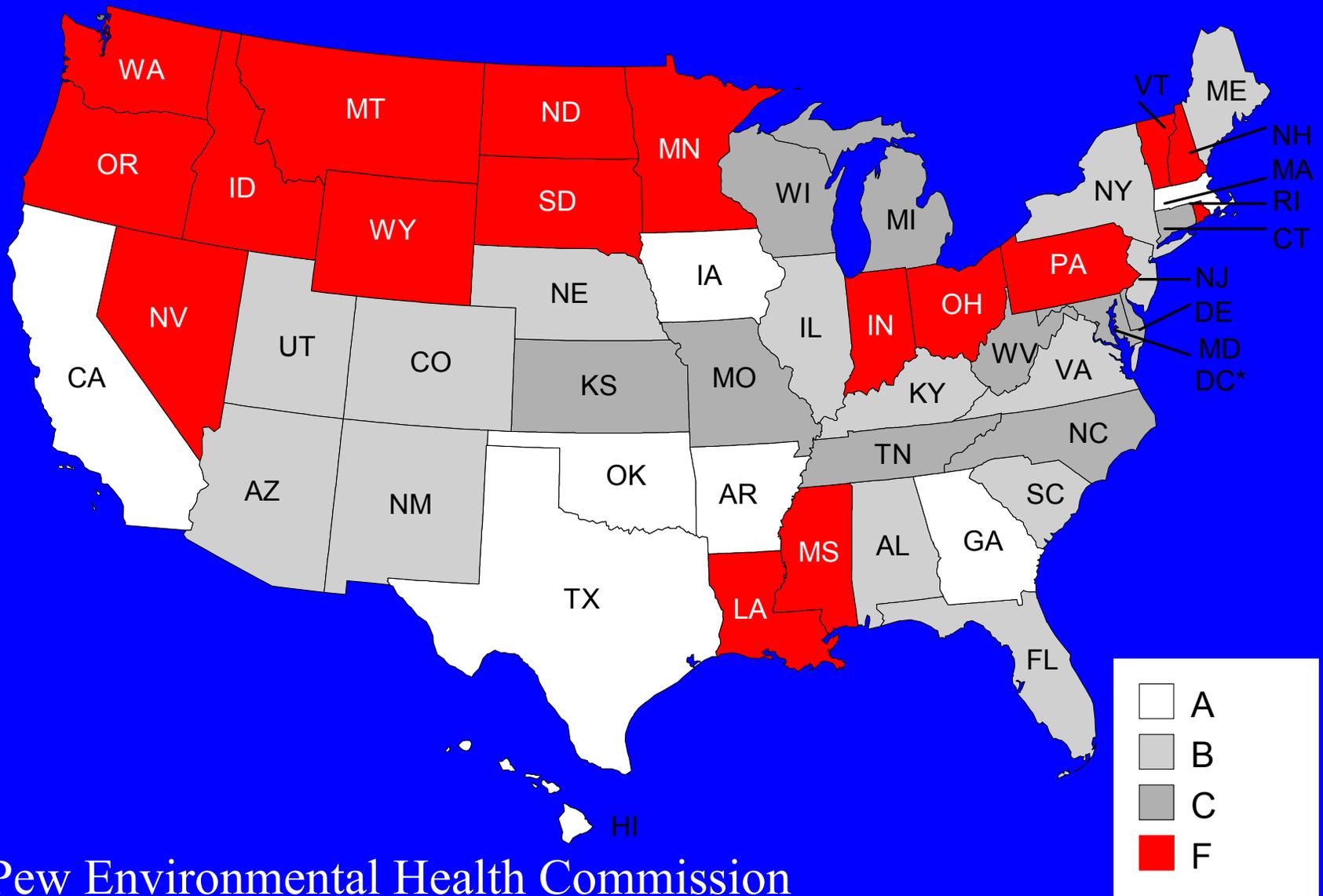
The Commission's Charge

- **Spur action by providing practical strategies and recommendations to improve the US public health system, with a focus on environmental health**
- **Educate policy makers and the public about environmental health threats and the critical need to rebuild our public health capabilities**

The Commission's Targets

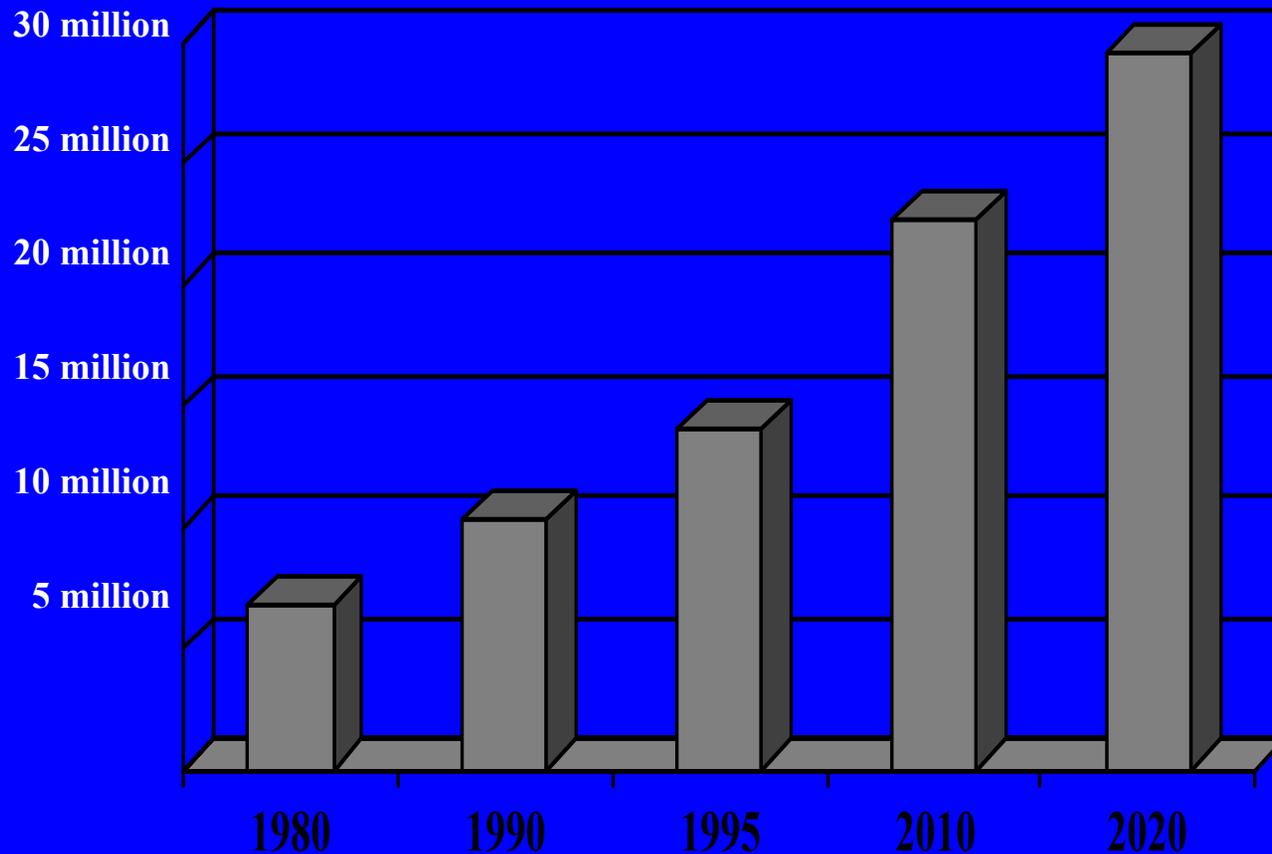
- **Focus spotlight on revitalizing environmental health with 3 ground breaking reports and an action plan**
 - _ **Our children at risk from their environment**
 - _ **A right to know where and how often disease strikes**
 - **the need for environmental health tracking**
 - _ **21st century public health defense system that can effectively fight environmental threats**

Birth Defects Surveillance Systems



Attack Asthma – *Why America Needs a Public Health Defense System to Battle Environmental Threats*

Total number of persons with asthma, computed and projected, 1980-2020



America's Environmental Health Gap

- **Assessment of current surveillance systems found significant lack of basic information on chronic disease and environmental factors**
 - ❖ **Most states fail to track developmental disabilities**
 - ❖ **Only 6 states report tracking autoimmune diseases such as lupus even though rates for these diseases are rising**
 - ❖ **More than half the states (27) lack ongoing tracking and monitoring of asthma**
- **Without this knowledge, public health efforts are limited in preventing disease and ensuring effective interventions and policies.**

Nationwide Health Tracking Network: Components

- **Tier 1: National Baseline Tracking of Diseases and Exposures**
- **Tier 2: National Early Warning System**
- **Tier 3: State Pilot Tracking Programs**
- **Tier 4: Public Health Investigative Response**
- **Tier 5: Tracking Links To Communities and Research**

Starting Point Health Tracking

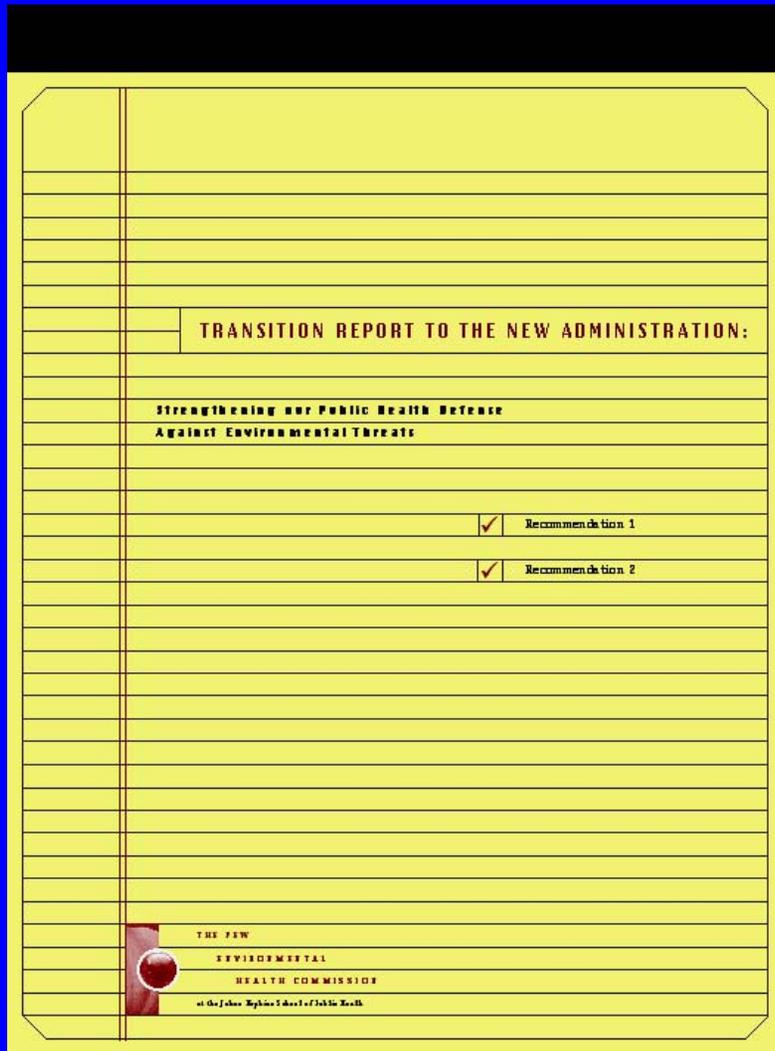
Diseases and Conditions

- Birth defects
- Developmental disabilities
- Asthma and chronic respiratory diseases
- Cancer, including childhood cancers
- Neurological Diseases

Exposures

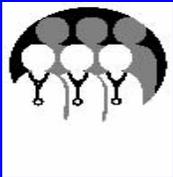
- Persistent organic pollutants
- Heavy metals
- Pesticides
- Air contaminants
- Drinking water contaminants, including pathogens

Presidential Transition Report for a National Health Defense to Battle Environmental Threats



1. Create a Public Health Force that Can Wage and Win the Battle Against Chronic Diseases and Environmental Risks.
2. Create a Nationwide Health Tracking Network to provide the capacity to better understand, respond to and prevent chronic disease in this country.

Modernizing Public Health for the 21st Century



**More and better trained health
professionals**



Early-warning and communications systems



Fully equipped public health laboratories



**Nationwide health tracking for disease and
exposures**



Surveillance

“Of particular concern for the public health infrastructure are interrelated weaknesses in the nation’s disease surveillance systems and inadequate access to information systems and communications tools.”

2003 Institute of Medicine

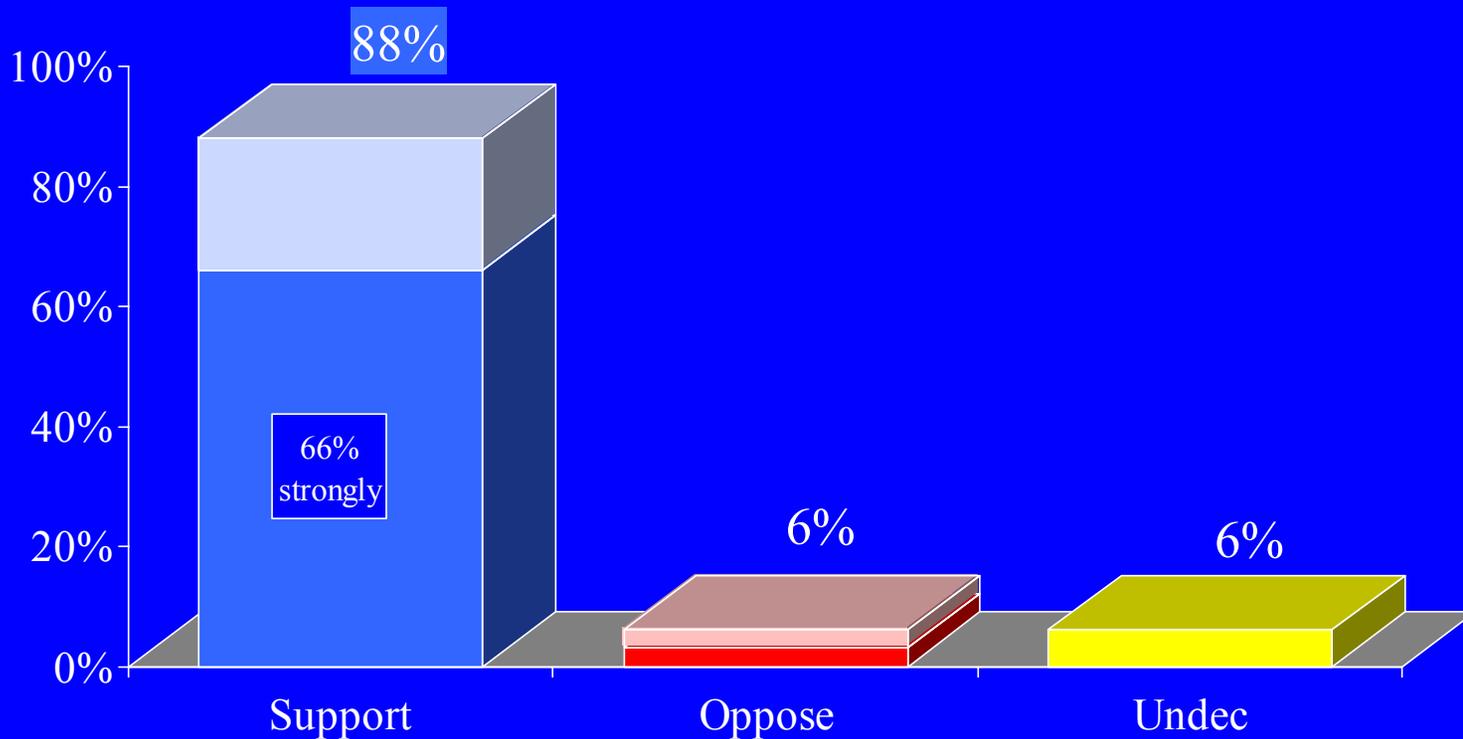
The Future of the Public’s Health in the 21st Century

“The Pew Environmental Health Commission reports and recommendations have been endorsed by major public health organizations, including APHA, ASTHO, the Association of Public Health Laboratories, the Council of State and Territorial Epidemiologists, NACCHO and PHF. The committee strongly supports this recommendation of a nationwide health tracking network in state and local health departments.”

2003 Institute of Medicine

The Future of the Public's Health in the 21st Century

An Overwhelming Majority Support The Tracking Proposal



Darker shading=stronger intensity

www.healthyamericans.org

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Alerts to help
modernize public
health**

